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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/636,171	08/10/2000	Joseph Coffey	2316.1223US01	6575
23552	7590	06/03/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			KNAUSS, SCOTT A	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/636,171

Applicant(s)

COFFEY, JOSEPH

Examiner

Scott Alan Knauss

Art Unit

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-- The MAILING DATE of this communication appears n the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 18-24, 26, 30-37, 39, 40 and 46-58 is/are rejected.
- 7) ☒ Claim(s) 13-17, 25, 27-29, 38, 41-45, 52 and 59-62 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the information disclosure statement have been considered by the examiner.

Drawings

2. This application has been filed with drawings containing informalities such as hand drawn reference and figure numbers. Formal drawings will be required when the application is allowed.

Claim Objections

3. Claims 27 and 52 are objected to because of the following informalities. Appropriate correction is required.

Regarding claim 27, "the unique number" lacks proper antecedent basis in the claims. The examiner recommends "a unique number"

Regarding claim 52 "the twisted pair" should most likely be changed to "the port pair"

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3,5,6,11,12,18,19,21,22,24,26,30,32,33,37,39,40,51-54 and 58 rejected under 35 U.S.C. 102(b) as being anticipated by EMC39-12 User's Guide, cited in IDS.

Regarding claim 1, EMC discloses on page 1-2 a converter comprising:

A plurality of first ports (12 twisted pair segments)

A plurality of second ports (12 single mode ports) of a different type than the first ports, each first port being electrically coupled to a distinct second port, creating a plurality of port pairs (see paragraph 2)

A monitor (12 sets of LED's) electrically coupled to the plurality of port pairs to monitor information concerning a selected port pair. (The examiner interprets a "selected port pair" to mean, for example, that the 12th set of LED's is configured to monitor a 12th pair, selected by the designer of the EMC39-12)

Regarding claim 24, as stated above, EMC discloses an input for receiving signals from multiple ports, a plurality of a first type and a plurality of a second type, which are electrically coupled to form port pairs

Means, in this case the wiring within the EMC39-12, for selecting a port pair to monitor, electrically coupled to the input for selecting a port pair to monitor, and

A display (LED's) electrically coupled to the means for selecting and the input to display that the port pair is being monitored by means of illuminated LED's

Regarding claim 39, EMC discloses a monitoring device, inherently possessing a circuit board (necessary to provide electronics inside device), comprising:

An input receiving signals from a plurality of port pairs of the converter

A port pair selector (in this case the internal wiring of the device) for selecting which pair to monitor

A monitor circuit coupled to the input and port pair selector, which monitors conditions of the port pair being selecting (see 4-1 to 4-2) and

A display which indicates which of a plurality of port pairs is being monitored (via the numbers indicating the number (1-12) of the port pair to which each set of LED's corresponds)

Regarding claim 51, EMC discloses a monitor for a converter comprising:

An input electrically coupled to plurality of port pairs, each pair having a port of a first type coupled to port of a second type of a different format

A selector (in this case internal wiring of the EMC 39-12) coupled to the input for selecting which of a plurality of port pairs is monitored by a particular set of LED's.

A monitor circuit for monitoring at least one condition of the port pair selected (see 4-1 to 4-2) and

A display (LED's) coupled to the input for displaying the port pair being monitored (via the numbers indicating the number (1-12) of the port pair to which each set of LED's corresponds) and whether a fault condition is present at the pair being monitored.

Regarding claim 2, the EMC monitors activity (transmit/receive, see 4.2, 4.3) on the first and second port of a pair.

Regarding claim 3, the EMC monitors whether the first and second ports are properly linked (i.e. terminated) see 4.4, 4.5.

Regarding claims 5,6,32,33,46,47,53 and 54 EMC discloses that the first ports are electrical connectors receiving signals from twisted pair wiring (see 3.1). The

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examiner considers each individual twisted pair to itself comprise a separate connector. EMC further discloses the use of a plurality of single or multi mode fibers connected via optical connectors (see 3.2, A.2)

Regarding claim 11 EMC discloses a display which indicates which of a plurality of port pairs is being monitored (via the numbers indicating the number (1-12) of the port pair to which each set of LED's corresponds)

Regarding claim 12,37and 58, EMC discloses the display having digits (1-12) indicating which pair is being monitored by each set of LED's.

Regarding claim 18, the EMC monitors activity (transmit/receive, see 4.2, 4.3) on the first and second port of a pair, and the EMC monitors whether the first and second ports are properly linked (i.e. terminated) see 4.4, 4.5.

Regarding claims 19 and 30 , the EMC uses LED's (see 4-1)

Regarding claim 21, The monitor would inherently be detachable, since one could take apart the device and remove the monitor.

Regarding claim 22, the first ports are on one side of the converter, and the second ports are on the other side.

Regarding claims 26,40 and 52, an LED turns off if there is no link between a twisted pair or fiber and a device at the opposite end (see 4.4, 4.5), thus indicating a fault condition.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4,20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over EMC 39-12.

Regarding claim 4, although it is not explicitly stated that the first ports receive signals from copper wiring, it is well known in the art that twisted pair wiring uses copper wiring, due to the low resistance of copper wiring, and therefore it would have been obvious to one of ordinary skill in the art to use copper wiring. Once again, it is the examiner's opinion that each twisted pair could be considered to be an individual connector.

Regarding claim 20, EMC does not disclose the converter having a flashing display if a fault condition exists, instead disclosing that the LED turns off. Nevertheless, it is well known in electronic devices to have LED's which flash if a fault exists in order to alert a user of the fault.

Therefore, it would have been obvious to one of ordinary skill in the art to use such a flashing LED in order to alert a user of a fault.

Regarding claim 23, EMC does not disclose placing the monitor between the first and second group. Nevertheless, arranging the groups in such a manner would merely be a matter of design choice, as one could arrange the parts of the converter in any desired configuration. Therefore, it would have been obvious to one of ordinary skill in the art to place the monitor between the two groups as desired.

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7. Claims 7,8,34,35,48,49,55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over EMC in view of "Flexpoint FL/2 User instructions" (Omnitron Flexpoint)

Regarding the above claims, EMC discloses converting to and from twisted pair ports, but does not disclose converting to and from coaxial cables connected to electrical connectors.

Nevertheless, it is well known in the art to convert between such formats. One example is disclosed by Omnitron Flexpoint, which discloses a converter which converts between a coax cable and single or multimode fibers.

Therefore, it would have been obvious to one of ordinary skill in the art to replace the twisted pair ports with a plurality of coax connectors for the purpose of converting between a plurality of coax and single/multimode fiber connections, which can then be monitored by the display.

8. Claims 9,36,50 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over EMC in view of "Omnitron Announces a complete line...." (Omnitron)

Regarding the above claims, EMC discloses converting to and from twisted pair ports, and single/multimode fiber but does not disclose converting from multimode to single mode.

Nevertheless, once again, such converters are well known in the art, as exemplified by the Omnitron article, for the purpose of converting between such formats.

Therefore it would have been obvious to one of ordinary skill in the art to replace the twisted pair connections with a plurality of multimode fiber connections for the purpose of providing conversion between a plurality of such connections simultaneously, which can then be monitored.

9. Claims 10 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over EMC in view of "5250 Copper/Fiber..." (Transition)

Regarding claims 10 and 31 EMC discloses converting to and from twisted pair ports, and single/multimode fiber but does not disclose converting from RJ-45 to single mode.

Nevertheless, once again, such converters are well known in the art, as exemplified by the Transition manual, for the purpose of converting between such formats.

Therefore, it would have been obvious to one of ordinary skill in the art to replace the plurality of twisted pair connections with RJ-45 connections as specified by Transition, for the purpose of converting between a plurality of such connections, which can then be monitored.

Allowable Subject Matter

10. Claim 13-17,25,27,28,29,38,41-45 and 59-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 13,38,42 and 59, prior art fails to teach or suggest modifying EMC to use a liquid crystal display instead of LED's.

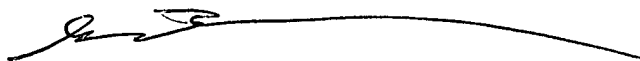
Regarding claims 14-17,25,28,29,43-45, and 60-62, prior art fails to teach or suggest the use of a switch or switches to select which port will be monitored.

Regarding claim 27 and 41, prior art fails to disclose the use of LED digit display in the device disclosed by EMC.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Alan Knauss whose telephone number is (571) 272-2350. The examiner can normally be reached on 9-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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